

Building a Meaningful Web: From Traditional Knowledge Organization Systems to New Semantic Tools

The 6th Networked Knowledge Organization Systems (NKOS) Workshop

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ABSTRACT

This Networked Knowledge Organization Systems/Services (NKOS) workshop (the 6th in the series: <http://nkos.slis.kent.edu/>) will focus on the transformation of traditional knowledge organization systems (KOSs), such as classification schemes and thesauri, to new forms of knowledge representation such as ontologies, topic maps, and semantic Web components, where relationships between concepts are richer and more extensive and in which the requirements of computer processing are met. The session will include discussion of the contribution of principles from more traditional practices to the design of new knowledge organization systems and exploitation of the extensive intellectual capital available in traditional KOSs in the development of new forms of KOSs.

Topics may include:

- Definitions of traditional KOSs and new semantic tools
- An overview of the body of knowledge from traditional KOSs and its application to ontologies, topic maps, and other new KOS forms
- Relevant standards and their status
- Methodologies for transforming legacy KOSs into newer semantic forms
- Development of Web services to support the use of KOSs in digital libraries

Keywords

Controlled Vocabularies, Thesauri, Topic Maps, Semantic Web, Ontologies, Networked Knowledge Organization Systems

AIM AND OBJECTIVES

The primary aim of the workshop is to bring together two often disparate communities – developers of traditional KOS tools such as classification schemes and thesauri and developers of newer semantic tools such as ontologies and topic maps. The objective is to determine how newer KOS development can take advantage of the vast body of knowledge from more traditional systems and

how the practices for traditional KOS structures can benefit from the technological advances being developed to improve semantic access to Web content.

The workshop will provide a forum for researchers and developers who are implementing both traditional and newer semantic tools in digital libraries to present current projects. The object is to encourage sharing of lessons learned and to identify collaborative development opportunities.

The objectives of this workshop reflect the goal of NKOS to develop a community of those who are working toward creating interactive KOSs accessible over the Web.

PROGRAM

Session 1: Welcome and introduction to NKOS and to the workshop

Session 2: Self-introductions and brief descriptions of projects and interests

Session 3: From classification schemes and thesauri to ontologies and semantic tools: What is worth keeping and what should be changed?

Session 4: Transforming traditional KOS tools into new semantic forms (up to 3 presentations)

Session 5: KOSs as Web services (up to 2 presentations)

Session 6: Open discussions

WORKSHOP FORMAT

The full-day workshop will include invited and volunteered short presentations. Presentations will be selected by the organizers. Presentations will be balanced with a significant amount of time for open discussion and networking opportunities. Participants will be encouraged to describe their own work in this area and will be given the opportunity to introduce their work and their interests briefly.

ATTENDEES

The workshop will be announced via the NKOS listserv, which now has over 100 members from more than 10 countries. In addition, other relevant listservs and groups, such as ASIST-L, ASIST SIG-CR, ECDL, Dig-Lib, ASI, and standards-related groups will be notified. Approximately 25-35 participants are expected, though the organizers would prefer not to limit attendance. If necessary, the participants will be accepted in the order of registration, after ensuring that there is a balance in the number of representatives of traditional and newer KOS forms. As in the past, the organizers will work with the JCDL organizers to coordinate logistics and monitor registrations.

WORKSHOP ORGANIZERS

Gail Hodge, Sr. Project Manager at Information International Associates, Inc. has been involved in the development and implementation of knowledge organization systems for the last 25 years. She has worked on numerous thesauri and classification schemes and more recently on taxonomies for NASA Goddard Space Flight Center and the Science.gov interagency Web site. She has written and presented numerous papers on related topics. Ms. Hodge has been on the organizing committee for NKOS for the last 5 years.

Dr. Marcia Lei Zeng is Associate Professor of Library and Information Science at Kent State University. Her major research interests include knowledge organization and representation, electronic publishing, indexing and abstracting, and database quality control. Her scholarly publications include over 50 papers and two books, as well as many national and international conference presentations. Currently, she is working on a NSF-funded National Science Digital Library project. Dr. Zeng serves on a number of KOS-related working groups for organizations such as IFLA, SLA and NISO.

Dr. Dagobert Soergel is Professor, College of Information Studies, University of Maryland, since 1970. He has been working in the area of classification (taxonomy, ontologies) and thesauri both practically and theoretically for over 40 years. He is the author of two books on indexing languages and thesauri and numerous papers and presentations on the theory and practice of thesaurus construction. He has developed a number of thesauri, including the Alcohol and Other Drug Thesaurus. He is currently chief consultant on the Harvard Business Thesaurus. In addition he has developed thesaurus management software and proposed systems for integrating access to knowledge about concepts and terminology.

PREVIOUS NKOS ACTIVITIES

This is the 6th in the series of NKOS workshops held in conjunction with the JCDL. Past topics have included protocols for networked KOSs, requirements for electronic thesauri, and digital gazetteers. Attendance has ranged from 15 to over 50 people. NKOS is an ad hoc working group of academics and practitioners interested in various knowledge organization systems in networked environments. The listserv, hosted by NSF DL2, includes over 100 professionals from over 10 countries. The NKOS Web site is hosted by Kent State Univ. NKOS-related sessions have been held at ASIST and ECDL. The ECDL and JCDL NKOS sessions have resulted in proceedings which are available from the NKOS Web site, and in a special issue of the Journal of Digital Information.